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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,658	11/20/2001	Akira Oosawa	Q66559	8995

7590 04/13/2006

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EXAMINER

LAVIN, CHRISTOPHER L

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,658	OOSAWA, AKIRA	
	Examiner	Art Unit	
	Christopher L. Lavin	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the amendment filed on 1/23/06.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1 – 6, 8 – 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kano (5,359,513) in view of Jatko ("Nonlinear filter derived from topological image features", SPIE Vol. 1295 Real-Time Image Processing II, 1990).

The rejections of claims 1 – 6 and 8 – 13 are maintained; please see the last office action, dated 07/22/05 for further details.

In regards to claim 16, The apparatus of claim 8, wherein the interimage processing comprises global matching between corresponding structural elements within the two images obtained of the same subject and local matching between corresponding small local regions within the two images obtained of the same object (col. 5, lines 1 – 33: Regions of Interested are used to perform matching, i.e., local matching. To find those ROIs a global matching is performed, which finds "anatomic structures".).

In regards to claim 15, claim 15 is rejected for the same reasons as claim 16. The argument analogous to that presented above for claim 16 is applicable to claim 15.

3. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kano in view of Jatko as applied to claims 1 – 4 and 8 – 11 respectively, and further in view of Doi.

The rejections of claims 7 and 14 are maintained; please see the last office action, dated 07/22/05 for further details.

Response to Arguments

4. Applicant's arguments filed 01/23/06 have been fully considered but they are not persuasive.

5. In response to applicant's argument that Kano and Jatko are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are dealing with image processing for subtraction images. Kano teaches of the problem of artifacts resulting from misregistration and Jatko teaches how to correct artifacts resulting from "spatial misregistration of the reference and sample". Therefore both Kano and Jatko are dealing with artifacts that result from misregistration of subtraction images and thus are analogous art.

6. The applicant next argues that a morphological filter must be provided that can "remove only the artifacts based on differences in shapes and sizes of the artifacts in comparison to the actual differences". The examiner does not understand this argument. Jatko removes small misregistration errors, which are by definition artifacts. Jatko would not correct for large errors (resulting in say a tumor growth between images).

7. The applicant then argues that "Jatko discloses that printing variations that fall within three times the standard deviation [...] are ignored." This is not correct. Jatko states in the 4th full paragraph on page 10 that the goal of the filter is to reduce features that lie within 3 standard deviations not ignore them. It should also be pointed out that examiner pointed to pages 12 – 14 for the teaching of artifact removal. It is the concept of artifact removal due to image misregistration that Jatko was brought in to teach.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L. Lavin whose telephone number is 571-272-7392. The examiner can normally be reached on M - F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571) 272-7453. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Lavin



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